



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,750	05/24/2001	Billy G. Moon	062891.0568	1922

7590 03/28/2005

Barton E. Showalter  
Baker Botts L.L.P.  
Suite 600  
2001 Ross Avenue  
Dallas, TX 75201-2980

EXAMINER

BARQADLE, YASIN M

ART UNIT	PAPER NUMBER
----------	--------------

2153

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/864,750

**Applicant(s)**

MOON, BILLY G.

**Examiner**

Yasin M Barqadle

**Art Unit**

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed on October 19, 2004 has been fully considered but are not deemed to be persuasive.

- Claims 1-38 are presented for examination.

### ***Response to Arguments***

Applicant argues that Xu, et al ``has no concern for moving a mobile object from home network to a foreign network for execution in response to unavailable resource''. Examiner notes, That Xu, et al the home registration agent generates a registration reply message in response to a registration request message associated with the mobile node. The home registration agent sends the registration reply message to the foreign agent (col. 4, lines 1-10).

The system-comprises a first communications device comprising a home registration agent responsive to a registration request message associated with a mobile node and a home tunneling agent associated with a home registration agent the receives traffic and redirecting the traffic to the other (foreign) network (col. 4, lines 14-25).

Art Unit: 2153

Xu, et al, also teach where the home registration agent 18A will serve a plurality of mobile nodes simultaneously and performing load balancing to distribute the load across more than one tunneling agent col. 6, lines 37-61). Therefore, Xu, et al clearly teaches this limitation.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Xu et al. (US Patent 6738362), hereinafter referred to as Xu.

In regards to claim 1, Xu discloses a method for registering a mobile object with a foreign network, comprising:

moving a mobile object from a home network to a foreign network in response to unavailable resources at the home network (col. 4, lines 1-25 and col. 6, lines 37-61);

executing the mobile object on a first virtual machine at a first router on a foreign network (col. 6 lines 65-67);

generating a care-of-name for the mobile object at a foreign object agent located on the foreign network (the foreign agent initiates the registration process, which when dealing with a network device includes any identifiers and appropriate security information, or in the case of a mobile device on a foreign network, a care of name to be associated with the care of address, col,7 lines 1-12, col. 4 line 55 - col. 5 line 4 also briefly discusses transferring identifiers and security information when registering on a mobile network).

communicating the care-of-name to a home object agent located on the home network (the registration information is sent to the home agent, including all associated identifiers, col. 7 lines 3-7).

generating a mobility binding for the mobile object at the home object agent, the mobility binding including the care-of-name (the home agent responds to the registration request with a care of address which binds the mobile user to the

Art Unit: 2153

home agent, col. 7 lines 13-23).

In regards to claim 2, Xu discloses providing an object name associated with the mobile object to the foreign object agent to create the care-of-name (each mobile device contains unique identifiers used to create a name for the device on the foreign network in the registration process, the identifiers used to associate a device to any given registration attempt, col. 7 lines 25-31 for an example).

In regards to claim 3, Xu discloses the care-of-name comprises an object name associated with the mobile object and an extension name to uniquely identify the mobile object on the foreign network (an extension name is provided for identifying the mobile Object, col. 8 lines 3-20).

In regards to claim 4, Xu discloses the home object agent operable to maintain network location information for the mobile object (the home object maintains network location information for the mobile device through use of the care of address supplied by the foreign agent, col. 7 lines 13-18).

In regards to claim 5, Xu discloses:

discovering the foreign object agent on the foreign network (the foreign agent discovers the mobile device, col. 6 lines 63-67, by receiving a broadcast message from the mobile device).

Art Unit: 2153

. Receiving an address associated with the foreign object agent at the mobile object (the mobile device sends registration information to the foreign agent, which would include an address, col. 6 lines 63 - col. 7 line 12).

In regards to claim 6, Xu discloses locating the mobile object on the foreign network by using the care-of-name associated with the mobility binding (the home agent can use the registration information provided by the foreign agent to locate the mobile object on the network for tunneling information, col. 7 lines 25-45).

In regards to claim 7, Xu discloses determining if the mobile object is authorized to negotiate with the foreign object agent based on object credentials associated with the mobile object (the home agent authorizes the mobile object to negotiate with the foreign agent to access the network, col. 7 lines 3-12).

In regards to claim 8, Xu discloses:

determining if the mobile object is authorized to negotiate with the foreign object agent based on object credentials associated with the mobile object (the home agent authorizes the mobile object to negotiate with the foreign agent to access the network, col. 7 lines 3-12);

providing authorization for the foreign object agent to communicate with the home object agent based on agent credentials associated with the foreign object agent if the mobile object is authorized to negotiate with the foreign object agent (once the mobile device has been determined to be authorized to negotiate with the foreign agent, the home agent creates a pathway between the home and foreign agents for communication, col. 7 lines 13-24).

In regards to claim 9, Xu discloses:

determining if the mobile object is authorized to negotiate with the foreign object agent based on object credentials associated with the mobile object (the home agent authorizes the mobile object to negotiate with the foreign agent to access the network, col. 7 lines 3-12);

providing authorization for the foreign object agent to communicate with the home object agent based on agent credentials associated with the foreign object agent if the mobile object is authorized to negotiate with the foreign object agent (once the mobile device has been determined to be authorized to negotiate with the foreign agent, the home agent creates a pathway between the home and foreign agents for communication, col. 7 lines 13-24);

authenticating the object credentials at the home object agent to create the mobility binding for the mobile object if the



Art Unit: 2153

foreign object agent receives authorization to communicate with the home object agent (once the above two steps have been completed, the binding to the home agent is created, having already authorized the mobile client beforehand, col. 7 lines 3-12).

In regards to claim 10, Xu discloses:

copying the mobile object to create a duplicate mobile object on a second virtual machine at a second router located on the foreign network (the mobile device can be transferred to a second router on the foreign network, col. 8 line 57 - col. 9 line 11);

creating a duplicate mobility binding at the home agent for the duplicate mobile object by obtaining a duplicate care-of-name from the foreign object agent (the home agent binding is copied to the new foreign agent location, col. 8 line 57 - col. 9 line 11).

In regards to claim 11, Xu discloses:

moving a portion of the mobile object to a second virtual machine at a second router located on the foreign network (the mobile device can be partially transferred to a second router on the foreign network, col. 8 line 57 - col. 9 line 11);

creating a secondary mobility binding at the first router for the portion of the mobile object by obtaining a secondary care-of-name from the foreign object agent (the home agent

Art Unit: 2153

binding is copied to the new foreign agent location, col. 8, line 57 - col. 9 line 11).

In regards to claim 12, Xu discloses a method for registering a mobile object with a foreign network, comprising:

moving a mobile object from a home network to a foreign network in response to unavailable resources at the home network (col. 4, lines 1-25 and col. 6, lines 37-61);

executing a mobile object on a virtual machine at a router on a foreign network (col. 6 lines 65-67);

generating a care-of-name for the mobile object at a foreign object agent located on the foreign network (the foreign agent initiates the registration process, which when dealing with a network device includes any identifiers and appropriate security information, or in the case of a mobile device on a foreign network, a care of name to be associated with the care of address, col. 7 lines 1-12, col. 4 line 55 - col. 5 line 4 also briefly discusses transferring identifiers and security information when registering on a mobile network);

communicating the care-of-name to a home object agent located on a home network (the registration information is sent to the home agent, including all associated identifiers, col. 7 lines 3-7);

generating a mobility binding for the mobile object at the home object agent, the mobility binding including the care-of-name (the home agent responds to the registration request with a

Art Unit: 2153

care of address which binds the mobile user to the home agent, col. 7 lines 13-23);

locating the mobile object on the foreign network by using the care-of-name associated with the mobility binding (the home object maintains network location information for the mobile device through use of the care of address supplied by the foreign agent, col. 7 lines 13-18).

In regards to claim 13, Xu discloses the care-of-name comprises an object name associated with the mobile object and an extension name to uniquely identify the mobile object on the foreign network (each mobile device contains unique identifiers used to create a name for the device on the foreign network in the registration process, the identifiers used to associate a device to any given registration attempt, col. 7 lines 25-31

For an example);

generating a care-of-address associated with the care-of-name for the mobile object at the foreign object agent (the foreign object receives information from the home agent, used to create a care-of-address for the mobile agent, col. 7 lines 13-23);

establishing a tunnel between the home object agent and the mobile object by using the care-of-address as an endpoint of the tunnel (the tunnel is created between the home agent and the mobile object, col. 7 lines 13-23).

Art Unit: 2153

In regards to claim 15, Xu discloses the care-of-address comprises an Internet Protocol address (col. 7 lines 13-18).

In regards to claim 16, Xu discloses the home object agent operable to; maintain network location information for the mobile object (the home object maintains network location information for the mobile device through use of the care of address supplied by the foreign agent, col. 7 lines 13-18).

In regards to claim 17, Xu discloses a router comprising a virtual machine configured to host a mobile object, the mobile object operable to:

negotiate with a foreign object agent Located on a foreign network for a care-of- name (after supplying the foreign agent with registration information including name and security identifiers, the foreign agent initiates the registration process, which when dealing with a network device includes any identifiers and appropriate security information, or in the case of a mobile device on a foreign network, a care of name to be associated with the care of address, col.7 lines 1- 12, col.4 Line 55 - col.5 Line 4 also briefly discusses transferring identifiers and security information when registering on a mobile network);

obtain a mobility binding from a home object agent Located on a home network by using the care-of-name (the home agent responds to the registration request with a care of address which binds the mobile user to the home agent, col.7 lines 13-23).

In regards to claim 18, Xu discloses the mobile object operable to provide an object name associated with the mobile object to the foreign object agent (each mobile device contains unique identifiers used to create a name for the device on the foreign network in the registration process, the identifiers used to associate a device to any given registration attempt, col.7 Lines 25-31 for an example).

In regards to claim 19, Xu discloses the care-of-name comprises an object name associated with the mobile object and an extension name that uniquely identifies the mobile object on the foreign network (an extension name is provided for identifying the mobile object, col.8 lines 3-20).

In regards to claim 20, Xu discloses the home object agent operable to:

- host the mobile object on the home network (fig.2);
- maintain network location information for the mobile object (col.7 Lines 3-12).

In regards to claim 21, Xu discloses the home object agent operable to:

- discover the foreign object agent on the foreign network through an agent solicitation message (the foreign agent sends a message to the home agent, col.7 Lines 3-12);

receive an address associated with the foreign object agent  
(in the above message, the foreign agent supplies an address)

In regards to claim 22, Xu discloses an agent virtual machine configured to host the foreign object agent (col.6 Line 63 - col.7 Line 12).

In regards to claim 23, Xu discloses the mobile object operable to:

- \* Create a duplicate mobile object operable to be hosted on a duplicate virtual machine at a duplicate router on the foreign network (the mobile device can be transferred to a second router on the foreign network, col.8 line 57 - col.9 Line 11) ;

obtain a duplicate mobility binding from the home object agent by receiving a duplicate care-of-name from the foreign object agent (the home agent binding is copied to the new foreign agent location, col.8 Line 57 - col.9 Line 11).

In regards to claim 24, Xu discloses the mobile object operable to:

move a portion of the mobile object to a duplicate virtual machine at a duplicate router on the foreign network (the mobile device can be partially transferred to a

Art Unit: 2153

second router on the foreign network, col.8 Line 57 - col.9 Line 11);

obtain a secondary mobility binding at the router for the portion of the mobile object by obtaining a secondary care-of-name from the foreign object agent (the home agent binding is copied to the new foreign agent location, col.8 line 57-col.9 line 11).

In regards to claim 25, Xu discloses:

the mobile object operable to send object credentials to the foreign object agent to obtain authorization to negotiate with the foreign object agent (the home agent authorizes the mobile object to negotiate with the foreign agent to access the network, col.7 Lines 3-12);

the mobile object obtaining the mobility binding if the home object agent provides authorization for the foreign object agent to communicate with the home object agent and authenticates object credentials associated with the mobile object (once the above step has been completed, the binding to the home agent is created, having already authorized the mobile client beforehand, col.7 Lines 3-12).

Claims 26-38 have similar limitations as claims 1-25, therefore, they rejected with the same rationale.

### Conclusion

2. **ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin Bargadle whose telephone number is 703-305-5971. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 703-305-4792. The fax phone numbers for the




Art Unit: 2153

organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Yasin Barqadle



GLENDON B. BURGESS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100